

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

This is Google's cache of <http://www.internetwk.com/100/manu-02.htm>.  
 Google's cache is the snapshot that we took of the page as we crawled the web.  
 The page may have changed since that time. Click here for the [current page](#) without highlighting.  
 To link to or bookmark this page, use the following url: [http://www.google.com/search?q=cache:BZ5SdeFGetMJ:www.internetwk.com/100/manu-02.htm+Software+%22Turbine+Optimizer+%22&hl=en&lr=lang\\_en&ie=UTF-8](http://www.google.com/search?q=cache:BZ5SdeFGetMJ:www.internetwk.com/100/manu-02.htm+Software+%22Turbine+Optimizer+%22&hl=en&lr=lang_en&ie=UTF-8)

Google is not affiliated with the authors of this page nor responsible for its content.

These search terms have been highlighted: **software turbine optimizer**

Cus  
An

Spo

Cus  
C



**INTERNETWEEK.com**  
 TECHNOLOGY THAT CONNECTS THE ENTERPRISE

Part of the  
**TechWeb** Business  
 Technology Network

**BREAKING NEWS | E-BUSINESS | APPLICATION DEVELOPMENT | SECURITY | OPEN SOURCE | ALL STORIES**

Enter term(s)

☐ InternetWeek

☐ TechWeb

**Search**

Advanced Search

**INTERNETWEEK**  
**100**

**FREE Newsletter**  
 Get the latest Internet  
 news every day with the  
 InternetWeek  
 NewsBreak e-mail  
 newsletter.  
 Tell me more  
 Sign me up

**Focal Points**  
 (sponsored links)

- Application  
integration
- Application  
Performance Mgmt
- Data  
Management
- IT Business  
Alignment
- Managed/  
Dedicated  
Hosting

**Resources**

Home  
 Features  
 About InternetWeek.com

## General Manufacturing

### GE's E-Biz Turnaround Proves That Big Is Back--CONTINUED

Rather, in a corporate culture known to compensate employees almost solely based on the number of years they've worked, Welch and his high-powered recruiters created new formulas that accounted for the unique experiences of young talent. Many were placed in the same salary brackets as executives with twice the business experience.

Among the other perks: highly visible and well-financed projects, as well as direct access to Welch and chief information officer Gary Reiner.

"Before the Internet, if people with the same experience came to me and said, 'I want to work at GE, I want to be compensated like an executive, and I want to report to the CIO,' I would have said, 'We're not breathing the same air.' Now we

Contact Us  
E-Mail Newsletter  
Tech Library  
Tech Careers  
Privacy Statement

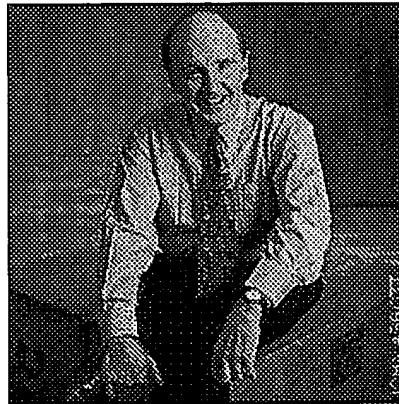
**Resource Centers**  
Virtual Private Networks  
(VPNs)

**TechWeb Sites**  
InformationWeek  
InternetWeek  
Network Computing  
Network Magazine  
Financial Technology  
Network  
Bank Systems &  
Technology  
Insurance & Technology  
Wall Street & Technology  
Technology & Learning  
Optimize Magazine  
The Open Enterprise

Ad Info

were offering them a chance to be a first-mover in a Fortune 5 company," says Paul Daversa, president of Resource Systems Group, a recruitment firm hired by GE to lure e-business executives following Welch's Internet address.

Daversa relates one story about an executive who was torn between GE and Boo.com. Going with the hotshot fashion startup would have meant equity worth \$15 million at the time.



"We've become pretty good at using size to our advantage. Size gives you the ability to experiment, to take risks because you're not going to sink yourself."

*John F. Welch*  
Chairman and CEO  
General Electric Co.

"We're in a position to play Monday morning quarterback, but look at Boo.com now," Daversa says. The British dotcom has been forced to liquidate after burning through \$120 million in the last 12 months. The **software** assets sold last month for a paltry \$373,000, and the rest were sold to Fashionmall.com for slightly more.

In the end, the prestige of being responsible for mapping the future of GE has attracted high-ranking executives from companies such as Andersen Consulting, Bertelsmann AG, Boston Consulting Group, DHL International Ltd., PepsiCo and Snap-on Inc.

#### License To Steal

Those executives were plugged into a \$112 billion goliath whose culture has celebrated the sharing of knowledge across diverse businesses ever since it emerged from a dark period of downsizing in the late 1980s and early 1990s.

"It turns out that all the work that GE did to break down the bureaucracy and create a culture of sharing was wonderful preparation for e-commerce," says Merrill Lynch's Terrile. Drastic changes in mindset resulting from that period—such as measuring fulfillment performance based not on how well GE meets its own objectives but on how well it meets customer needs—have "moved through GE rather quickly because each idea cuts a path that the next one can follow," Terrile says.

That includes GE's efforts in e-business. Welch's latest rallying cry is about the assets GE has that dotcoms don't: a wealth of products to sell, legions of devoted customers and the ability to deliver quality products on time. "We already have the difficult part, the 'stuff' that startups are looking for—world-leading products and technology, a century-old brand identity and a reputation," Welch says.

The challenge now is to coordinate e-business endeavors among GE's 20 far-flung units, including Appliances, Aircraft, Capital, Lighting, Medical Systems, Plastics, Power Systems and Transportation Systems. E-business leaders in these groups hold monthly interactive teleconferences, using PC screen emulators to demonstrate new Internet applications for buying, selling, customer care, manufacturing, logistics and fulfillment. They meet in person quarterly.

"We really give great praise to those who have copied from others, as much as those who came up with the idea to begin with," says CIO Reiner. "There's been a lot of work on the culture so that people are proud to take ideas from others."

#### Bidding For Dollars

One such idea is an e-auction application developed in less than three weeks by a handful of developers in the Transportation Systems business. Launched in

December, it's now in use at nearly all of GE's manufacturing units and is on track to handle \$5 billion in GE purchasing volume by the end of this year, Reiner says.

Auctions are conducted daily and are generally held for three hours, during which time approved suppliers bid against one another for GE's business. Purchasing managers across the company have access to an auction calendar on the Web, allowing them to post requests for quotes on production and non-production supplies.

GE Power Systems, which makes turbines for power production, is devoting about 15 percent of its purchasing activity, totaling \$1 billion, to e-auctions this year, says Jean-Michel Ares, the unit's vice president of e-business and chief technical officer. Most of that spending will be on indirect materials—products that aren't used in finished GE products—such as office supplies and computers.

The auctions have exposed the \$11 billion unit to a whole new set of suppliers, Ares says, and could save the unit as much as \$150 million this year.

GE's Medical Systems unit, which makes diagnostic imaging systems, saves between 10 percent and 15 percent on supplies procured through the auctions, says Joe Hogan, the unit's vice president of e-business who will become chief operating officer next month. The \$7.4 billion unit will conduct some 200 auctions this year, he says.

"We try to force as many items as we can into this auction model because of how much of a reduction you can get on cost," Hogan says. However, auctions are generally useful only for commodity items, such as cabling or microprocessors, that don't require customization.

Since launching e-purchasing applications just three months ago, for both auctions and straight purchases, the Medical Systems unit has shifted 10 percent of its spending to the Internet. It's on track to move 50 percent of spending online by year's end, Hogan says, totaling hundreds of million of dollars in volume.

Aside from the competitive nature of auctions, e-purchasing "improves quality, because a lot of times invoices are wrong, specifications are wrong," Hogan says. "You do it online, and it takes a lot of the touch time and the opportunity for defects out of the system."

GE's approach to e-auctions is starkly different than most companies. Big businesses tend to partner with dotcom companies which operate auctions as a service. "We don't see any reason to have another hand in the till," Hogan says. "Why do you want anyone to stand between you and your supplier? That's one of the advantages of being part of a big business like GE. We have our own technology."

#### **E-Business Genesis**

As early as 1994, GE's Plastics unit was distributing technical documentation over the Web on a site called Polymerland. By 1999, Welch was praising that site as an example of what the rest of the company should emulate.

Last year, Polymerland—which sells GE plastics and complementary products from 30 other vendors—handled \$100 million in orders, and it's on track to tally \$1.2 billion in volume this year, says Gerry Podesta, the \$7 billion unit's general manager of e-business.

But more than just freeing up salespeople from the low-level task of taking orders, Polymerland's ability to integrate ordering systems with production and delivery systems has decreased call volume 20 percent and improved on-time deliveries by 50 percent, Podesta says.

"You must have a world-class fulfillment capability to operate successfully on the Internet," Podesta says. "There is clearly a higher level of expectation on the Web than over the phone. You will lose customers on the Web if they get a late shipment."

The systems integration that made that possible led the Plastics unit to invent a metric called Span that measures how well a company is meeting customer expectations. Today, it's used to measure fulfillment on all Plastics orders, online and offline. It's also used by units such as GE Capital to measure how quickly mortgage applications are processed, Podesta says.

GE Plastics, which makes engineered plastics used in electronics, cars and buildings, borrowed technology from Power Systems to remotely monitor customer sites. The system, called Vendor Managed Inventory, keeps track of materials in silos and automatically submits an order when inventory gets low. Similar technology is used by GE Lighting to monitor light-bulb stockpiles at retail stores such as Wal-Mart, CIO Reiner says.

GE Plastics also pioneered customer-support tools called Wizards that are now in all of GE's manufacturing businesses.

One such Wizard lets product engineers select materials and colors for plastic pellets, mold a digital representation of a custom-designed product, and even get cost estimates for materials on the Web.

"A customer who is making a part—it could be a phone, a TV, a PDA, an automotive part, a blender, a vacuum cleaner—can use the site to factor out the specs and cost of parts," Podesta says.

A Wizard in use at GE Medical helps GE's salespeople and customer technicians work together to spec out and set up magnetic resonance imaging scanning (MRI) equipment in hospitals.

"Some of these pieces of equipment can be pretty complicated," Hogan says. "That information used to be in a person's head, and the only way you could get it was to make a phone call or send a fax, and someone would take a look at it and suggest what the configuration should be. Having it online allows the salesperson to ask the proper question, and it lets the customer see what the options are for that piece of equipment."

GE Power Systems launched a series of Wizards that help customers plan their need for power generators at temporary events, such as concerts and sporting events. For instance, the unit is handling energy needs at the summer Olympics in Sydney, Australia.

Previously, serving temporary needs would require physical locations in every region served. Now, customers can get customer service and support over the Web, Ares says. The result: What was a \$7 million business last year will be a \$100 million business this year.

#### **Data For Sale**

For its part, GE Medical discovered a way to use the Internet to layer data services on top of equipment sales. The application, called iCenter, relies on a direct Web connection to equipment operating at a customer's site. It keeps track of the patients examined by the equipment and feeds the data back to the customer. Customers can also use the link to send questions about the operation of the equipment.

GE also analyzes the data and compares it with other customer sites and provides those comparisons to customers so they can achieve greater performance. "We can say, 'Do you know you're only 60 percent as productive as another customer using the same equipment in in another part of the world? And by doing x, y and

z, you can increase productivity," Hogan says.

Similar remote-diagnostic systems are used in GE's Aircraft and Power Systems units. The Aircraft unit even monitors jet engines while they're in flight.

The counterpart to iCenter in Power Systems is called the **Turbine Optimizer**. Released last fall, the **Turbine Optimizer** lets customers view and analyze the performance of their turbines compared with turbines of similar capacity and in similar operating environments. GE charges additional fees for both the iCenter and **Turbine Optimizer** services.

New revenue streams were also a side benefit of GE Power Systems' Parts Edge site, which keeps track of 3,000 parts used on turbines and replaces printed catalogs and calls to customer services centers. Benefits include reduced printing costs, real-time updates and reduced call volume. The quoting cycle has also been reduced from two weeks to less than an hour, says Ares, the unit's CTO.

#### **GE As Guinea Pig**

The lessons learned by GE's manufacturing units don't just contribute to the success of other units. They also provide valuable product-development data to GE's Global Exchange Services unit, a developer of business-to-business trading technology.

The unit, formerly the value-added network operator GE Information Services, operates a so-called Global Supplier Network extranet used exclusively by GE businesses. It also provides similar e-marketplace technology to other companies, including 60 percent of the Fortune 500, says Jan Malasek, vice president of business development.

Global Exchange handles 1 billion transactions per year totaling \$1 trillion in volume. The unit interacts with GE's other divisions in a variety of ways. First, it treats the others as beta customers for emerging technology. It also scouts out technology developed by those divisions and repackages them for sale.

For instance, the e-auction technology developed by GE Transportation Systems and now in use across GE's manufacturing operations has been enhanced into an "industrial strength" application by Global Exchange and is now part of the Global Supplier Network. Indeed, most of GE's internal auctions are hosted by Global Exchange.

Global Exchange will take the next step this month when it begins selling the auction capabilities as a service to other companies, Malasek says. It will port the Windows NT application to various Unix platforms and provide support services on top.

"We not only provide technology to GE businesses, but we're also GE's technology face to the world," Malasek says.

Of course, GE runs several other better-known Internet operations, such as NBCi, a unit of GE's NBC broadcasting business that includes e-retail site Snap.com, data storage service Xoom.com, financial site CNBC.com, small business information site AllBusiness.com and MSNBC.com, a news service co-owned with Microsoft. The GE Capital unit also runs the GE Financial Network, a personal finance site.

#### **Early-Stage Investor**

GE's Internet activities aren't limited to the use and sale of technology. Last year GE Equity invested \$1.5 billion in technology suppliers, bringing the value of the total portfolio to \$5 billion, covering 250 companies. About 24 percent of that total is e-business specific.

The company plans to increase investment activity this year, after watching valuations rise instantly when GE announced large volume commitments with technology suppliers. Getting in as an investor prior to such deals lets GE share in the equity gains, Reiner says. "I'd say that's more than one of the motivations," he says with a laugh.

Equity investments are as much a collaboration among GE businesses as any other technology initiative. Prospects come in either through one of the manufacturing businesses, directly from GE Equity or from Reiner's office. No matter how the lead is generated, a group is assembled from all three entities to evaluate the opportunity and negotiate terms, Reiner says.

All told, nearly 18 months after Welch risked his legacy to convince his troops that they needed to consume themselves with all things Internet, GE's considerable resources have been put to work, and the giant battleship has turned.

As far as Reiner is concerned, GE's manufacturing operations have laid an e-business foundation that it now needs to build upon in three main areas: the buy side, the make side and the sell side. All activities for the foreseeable future will be aimed at going "deeper and deeper into those three areas," Reiner says.

Which, if you ask Welch, is not to imply that GE's work is largely done. "We're at the beginning of one of the most important revolutions in business," says Welch, who sits on the boards of NBCi and Internet incubator idealab. The Internet "will forever change the way business is done. It will change every relationship, between our businesses, between our customers, between our suppliers. Distribution channels will change. Buying practices will change. Everything will be tipped upside down. The slow become fast, the old become young. It's clear we've only just begun this transformation."

[Read the Q&A With CIO Gary Reiner](#)

[Return to InternetWeek 100 Home Page](#)

[Home](#) | [Breaking News](#) | [E-Business](#) | [Application Development](#)  
[Security](#) | [Open Source](#) | [All Stories](#)

[Media Kit](#) | [Feedback](#)

[Copyright © 2004](#) | [CMP Media LLC](#) | [Privacy Statement](#) | [Terms of Service](#)



## UNITED STATES PATENT AND TRADEMARK OFFICE

[Home](#)[Index](#)[Search](#)[System Alerts](#)[eBusiness Center](#)[News & Notices](#)[Contact Us](#)

## Trademark Electronic Search System(Tess)

TESS was last updated on Thu Apr 8 04:40:19 EDT 2004

[PTO HOME](#)[TRADEMARK](#)[TESS HOME](#)[NEW USER](#)[STRUCTURED](#)[FREE FORM](#)[BROWSE DICT](#)[BOTTOM](#)[HELP](#)[Logout](#)

Please logout when you are done to release system resources allocated for you.

## Record 1 out of 1

[Check Status](#)*(TARR contains current status, correspondence address and attorney of record for this mark. Use the "Back" button of the Internet Browser to return to TESS)*

## Typed Drawing

<b>Word Mark</b>	<b>OPTIMIZER</b>
<b>Goods and Services</b>	(CANCELLED) IC 007. US 023. G & S: stainless steel vertical <b>turbine</b> pumps. FIRST USE: 19910430. FIRST USE IN COMMERCE: 19910430
<b>Mark Drawing Code</b>	(1) TYPED DRAWING
<b>Serial Number</b>	74148014
<b>Filing Date</b>	March 15, 1991
<b>Current Filing Basis</b>	1A
<b>Original Filing Basis</b>	1B
<b>Published for Opposition</b>	September 24, 1991
<b>Registration Number</b>	1692454
<b>Registration Date</b>	June 9, 1992
<b>Owner</b>	(REGISTRANT) Marley Company, The CORPORATION DELAWARE 1900 Shawnee Mission Parkway Mission Woods KANSAS 66205
<b>Assignment Recorded</b>	ASSIGNMENT RECORDED
<b>Attorney of Record</b>	Richard R. Johnson
<b>Type of Mark</b>	TRADEMARK
<b>Register</b>	PRINCIPAL
<b>Live/Dead Indicator</b>	DEAD



**Cancellation Date** December 14, 1998

---

[PTO HOME](#)[TRADEMARK](#)[TESS HOME](#)[NEW USER](#)[STRUCTURED](#)[FREE FORM](#)[Business Day](#)[TOP](#)[HELP](#)

---

[HOME](#) | [INDEX](#) | [SEARCH](#) | [SYSTEM ALERTS](#) | [BUSINESS CENTER](#) | [NEWS&NOTICES](#) |  
[CONTACT US](#) | [PRIVACY STATEMENT](#)